To establish a minimum safe distance surrounding the TNT strips during OE operations, the "blast distance" calculated for the greatest TNT concentration hotspot detected during RI/FS sampling will be used. The blast distance is calculated using formulas provided by DoD Manual DA PAM 385-64, which considers soil volume, weight, and TNT concentration to derive an explosive weight according to:

$$\text{Blast Distance} = 40 \times (\text{soil volume} \times \text{soil weight} \times \text{percentage TNT})^{1/3}$$

For the Project Site, the maximum detected TNT concentration is 38 percent, the hotspot radius was 2 feet (as determined from the decrease in concentration in samples offset by 2 feet), the depth of the hotspot was taken as 2 feet bgs (TNT concentration at 2 feet was 11 percent, versus 38 percent a 1 foot bgs), and the soil weight was 115 pounds per cubic foot (as taken from RI/FS sampling results). The calculated blast distance (BD) then is:

$$BD = 40 \times (25.14\ ft^3 \times 115\ lb/ft^3 \times 0.38)^{1/3} = 411.78, \text{ or } 412 \text{ feet.}$$